



**The Future Value of Data**  
An Initial View to be Challenged  
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## Context

This is an initial point of view on the topic of the future value of data. It is a perspective to be shared, challenged, built upon and enhanced via a series of global discussions that are taking place throughout the first half of 2018.





## Data Politics

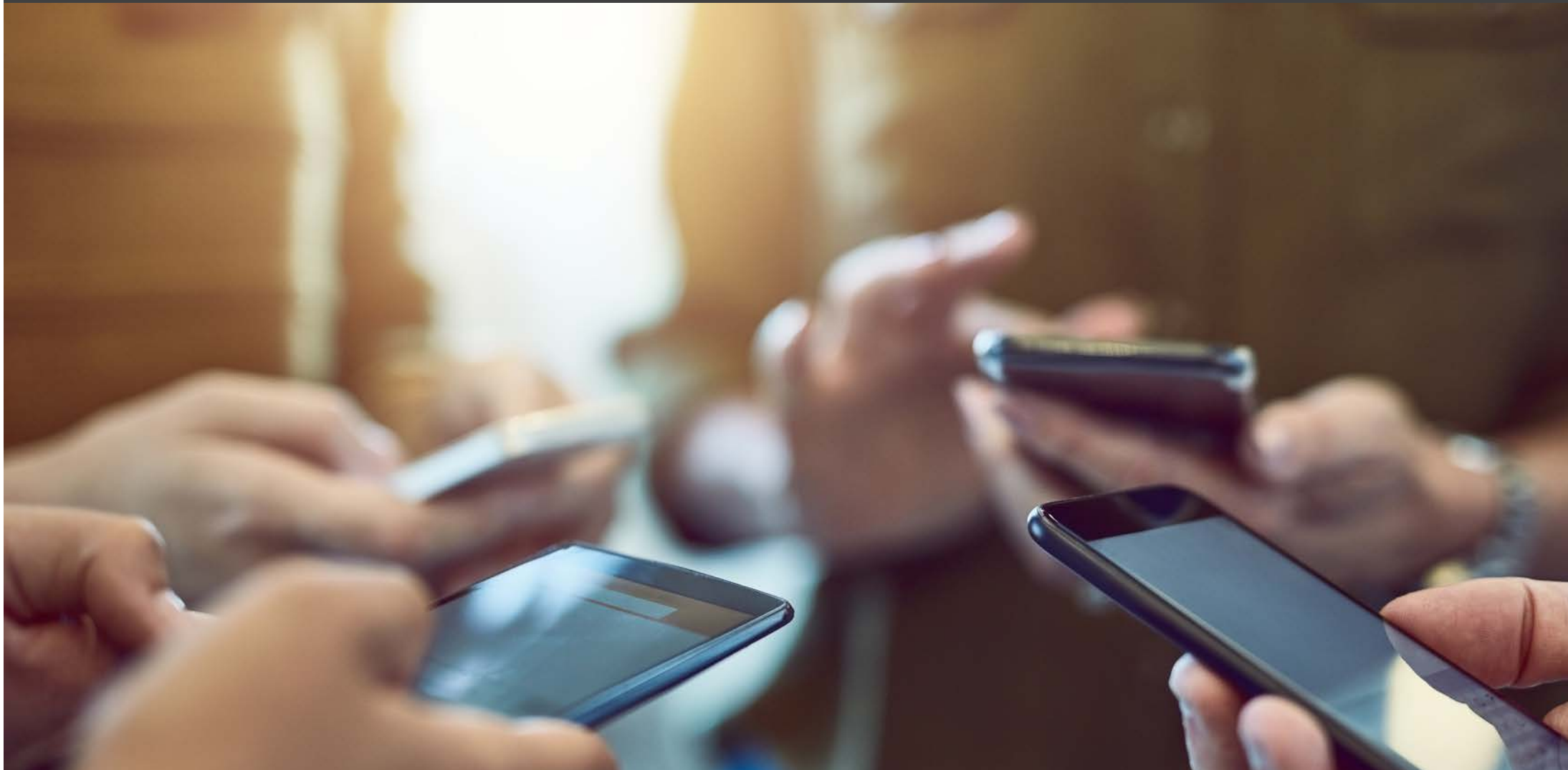
Data politics will enter mainstream political discourse and public conversation as more people come to understand the collection and use of their personal data, and the impacts of big data on their own lives.



## **Polarized Data Debate**

Data debate often revolves around polarized arguments that may become increasingly extreme, with many protagonists adopting 'all or nothing' positions with regard to issues such as privacy, security and economic freedom.





## Shared Data Language

Data is difficult to define and its roles in society are multifarious. A shared language around data and its use is likely to emerge, but it is not yet clear which voices will be seen as credible and authoritative.



## Coherent Data Value

Data has great value but to whom? Which types of data? In which contexts? Stakeholders will need to be very clear about the value of specific types of data to them, to their users and to society as a whole, or risk losing trust.





## Talking at Cross-purposes

‘Data’ is an umbrella for many different things. Different stakeholders may have very different perspectives on (and understandings of) data that are being masked, making the quest for common ground increasingly difficult.





## Data is the New...

Data can fulfil different roles in the economy, in society and for individuals. Simplistic views (data is the new oil) help us understand some roles, but also mislead and blind us. Data may be something completely new altogether.



## Data Liability

Counter to the prevailing idea of data being always an asset, storing some kinds of data could come to be seen as a liability as it erodes user trust, and the costs of securing it outweigh the costs associated with losing it.



## **From Education to Confidence**

We should work to educate people about the issues that really matter, in ways that help them learn what is most important. This involves changing how we approach issues such as informing, education, transparency and choice.





## **From Partial to Full value**

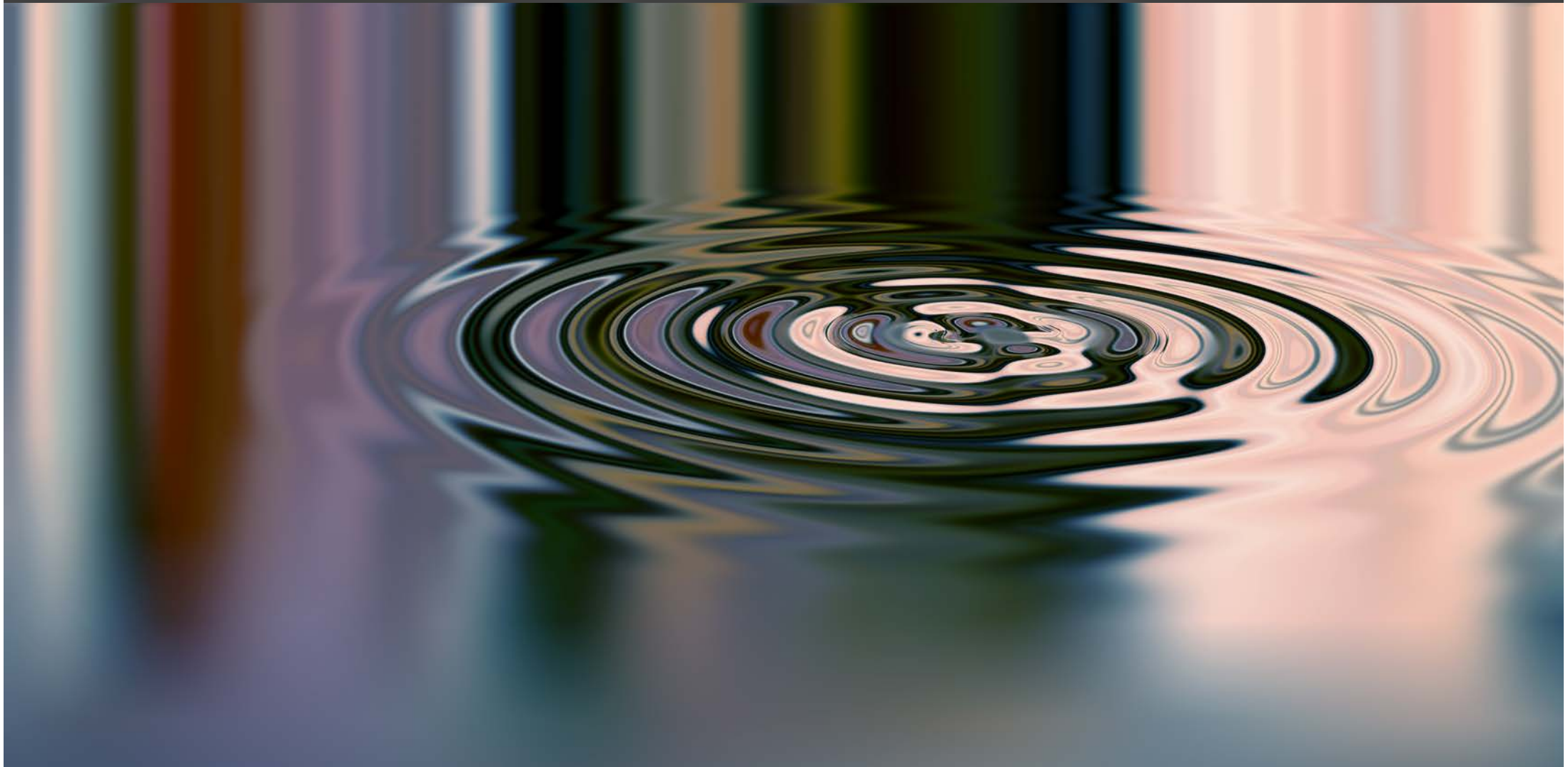
Value exchanges in existing data relationships should be reviewed:  
We need to explore new ways of using data to add personal and social value,  
such as innovative service models that work on behalf of the individual.





## **From Restrictive to Enabling**

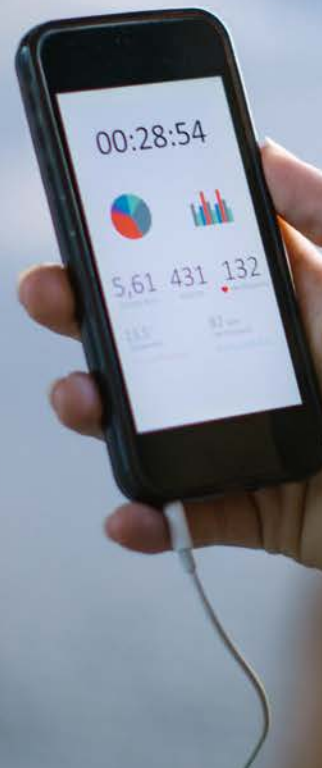
Policymakers and regulators often work in isolated parallel streams (stimulating growth on one hand, minimising risk on the other). A more joined up approach that unites them in mutually reinforcing ways is possible and necessary.



## **From Good Intentions to Good Outcomes**

We need to look beyond assumptions focused around the fictional idea of a 'reasonable' decision-maker to design processes, mechanisms and services that work with the grain of actual human behaviour.





## **From Compliance to Sustainable Customer Relationships**

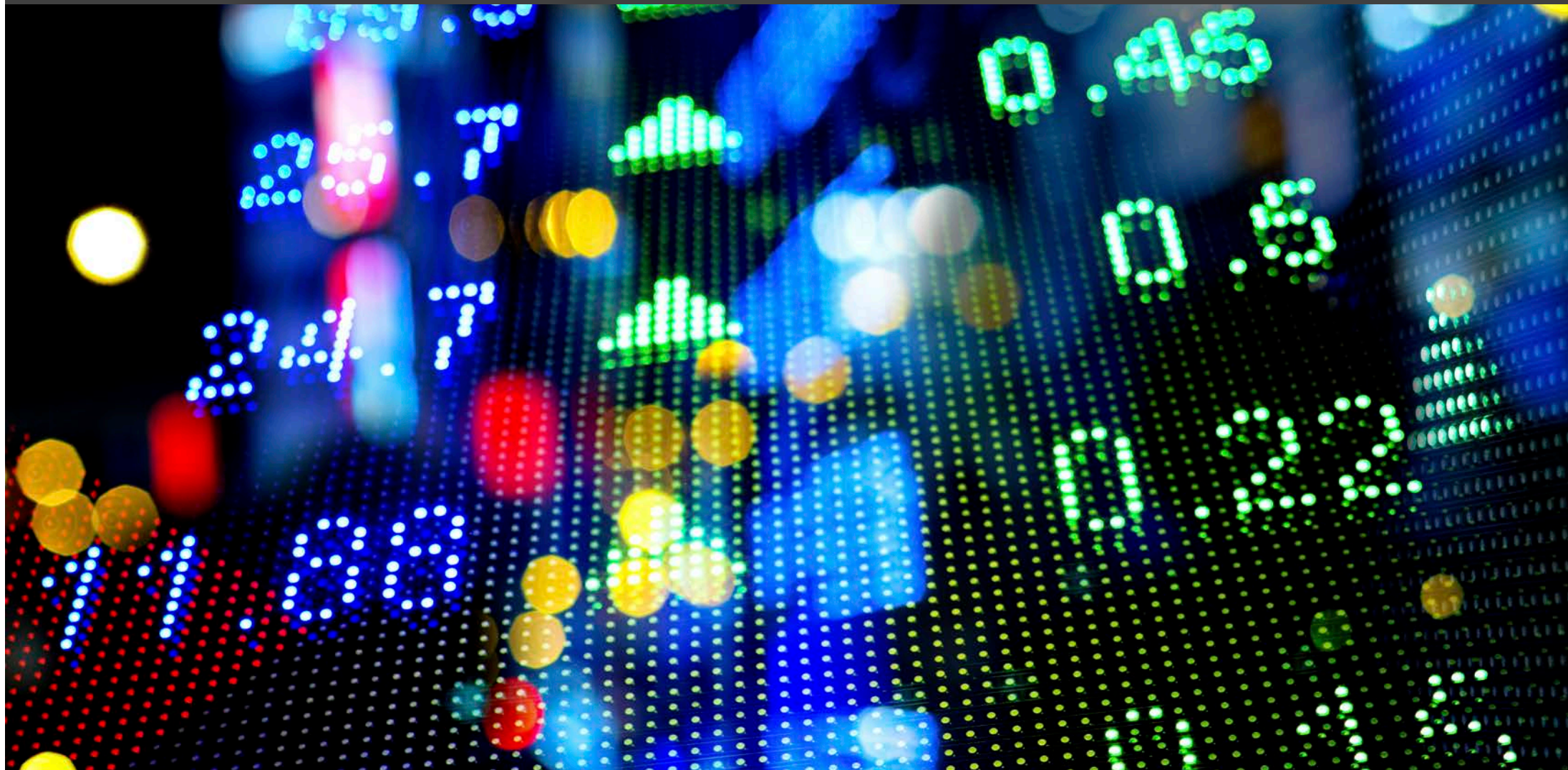
Organisations should look beyond short-term profit opportunities or compliance to build long-term trust-based relationships with the people who use their services and create a broader ecosystem based on trust and value.



## Value of Data

There is undoubtedly a huge economic incentive to generate and collect data from whatever sources it becomes available. As more data from more things becomes available, we can expect to see a data “land grab” by organisations.





## Data Marketplaces

Data is a currency, it has a value and a price, and so requires a marketplace. Ecosystems for trading data are emerging and soon both personal and machine data will be represented in new data marketplaces.





## Ethical Machines

Automation spreads beyond trading and managing systemic risk.

As we approach technology singularity, autonomous robots and smarter algorithms make ethical judgments that impact life or death.





GOT  
ETHICS?

## **Data Ethics and Trust**

As trust increasingly drives success, organisations will seek to make data ethics a focus. In order to engage and gain buy-in from governments and consumers alike, trust in data usage will become a core platform for differentiation.





## Personally Curated Data

‘Personally curated’ sources of data will have higher value simply due to the fact that they will represent the actual wishes and desires of an individual, rather than the presumed wishes and desires based on derived data.





## Masters of Our Data

In 2025 there will be a seamless border between digital and real where the digital truth becomes the real truth. We should increase awareness of our digital shadow becoming 'masters of our data'.





## **Rising Cyber Security**

Greater interconnectivity and the Internet of Things creates new vulnerabilities for governments and corporations - as the unscrupulous and the criminal increasingly seek to exploit weakness and destroy systems.





## Broader Cyber Terrorism

Cyber attacks move from the virtual world to the physical - attacking planes, utilities and industrial systems. Some see a corresponding slow down in the adoption of sensors and wider use of private encryption technologies.





## **The Rise of Machines**

The growth in the intelligence and capabilities of machines presents both a threat and an opportunity: Greater AI and automation free up time, but also threaten jobs - both low skilled and managerial / administrative roles.

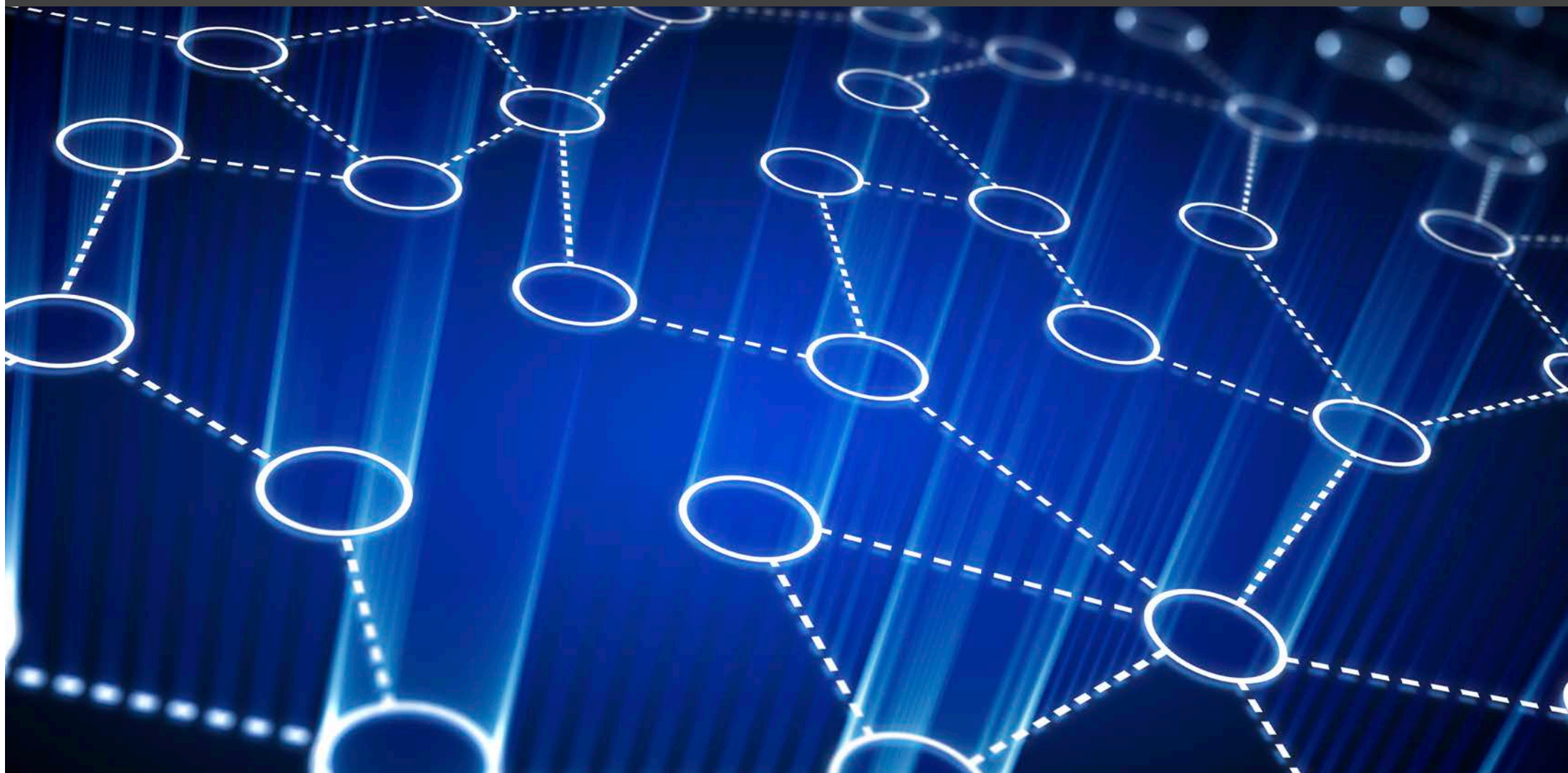




## Sharing Secrets

In exchange for better service or an improved quality of life, we increasingly recognise exactly what personal information we are prepared to share and who to share it with.





## Linkability of Open Data

No data will be truly anonymous: Current open data practice assumes that technology will be not be able to relink it to its source. This is not the case and so, by 2025, we will see different levels of de-identification.



## Global vs. Local

Technology is by its very nature global and data does not respect national boundaries. Nation states try to set the rules but tensions in global interoperability drive us to design for global standards, but with localised use.





## Data and Democracy

Many question whether privacy will enable the democratic process: Is there democracy without privacy? Citizen data is increasingly publicly used and shared by governments as an instrument of social change.





## Living in Glass Houses

If we get it right, we will be more comfortable to metaphorically 'live in a glass house', allowing our personal information to be widely accessible in return for the understanding that this enables a richer, more 'attuned' life as a result.





### Informed Consent

Given complex data flows, informed consent is increasingly challenging – so an alternative is needed: An accountability governance model incorporating ethics and respectful data use is a compelling substitute or complement.



## **India Setting Global Standards**

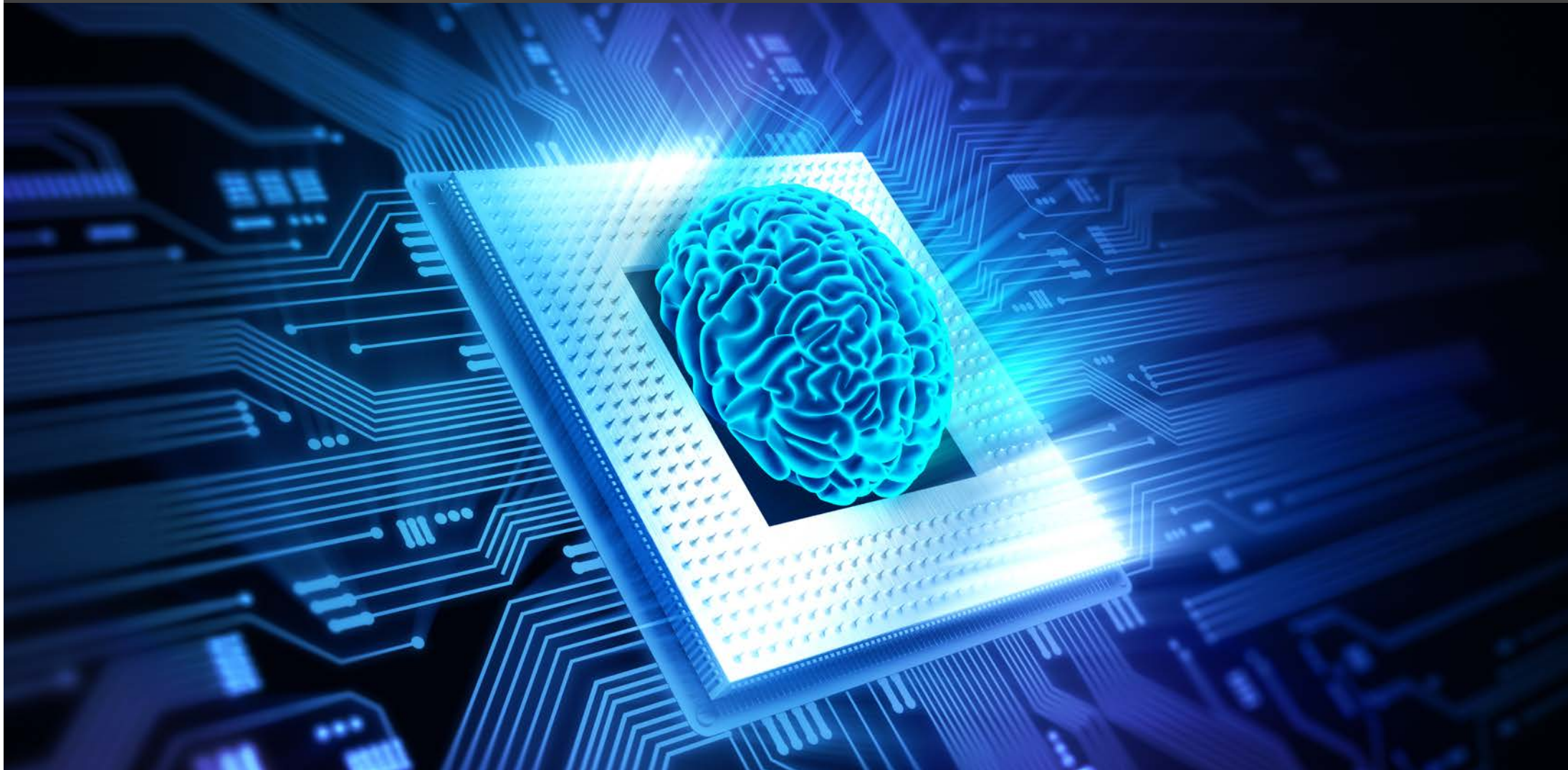
India is demonstrating an innovative approach to many challenges and has proven design solutions for low-income populations. These solutions will be applied to higher income economies with even greater efficiency benefits.





## **The Privacy Illusion**

There is a rising general belief in the right to data privacy and the right to data security. Both are illusions: Security is impossible without increased monitoring - and so true privacy is also impossible.



## **Machine Learning Driving Accuracy**

It will become common for people to chat with 'AI' advisers through apps. As more people use these services, more data is collected, machine learning improves significantly and therefore the more accurate advice can be.





## Data Ownership

The data we create about ourselves should be owned by each of us, not by the large companies that harvest it. Users should own their own data and be free to merge it with other sets as and when it could provide them useful insight.





## Individual Custodians

As more information is available to the individual, many people are able to make more informed decisions about their lives because they can become custodians of their own health and financial records.





## **Blockchain for Trust**

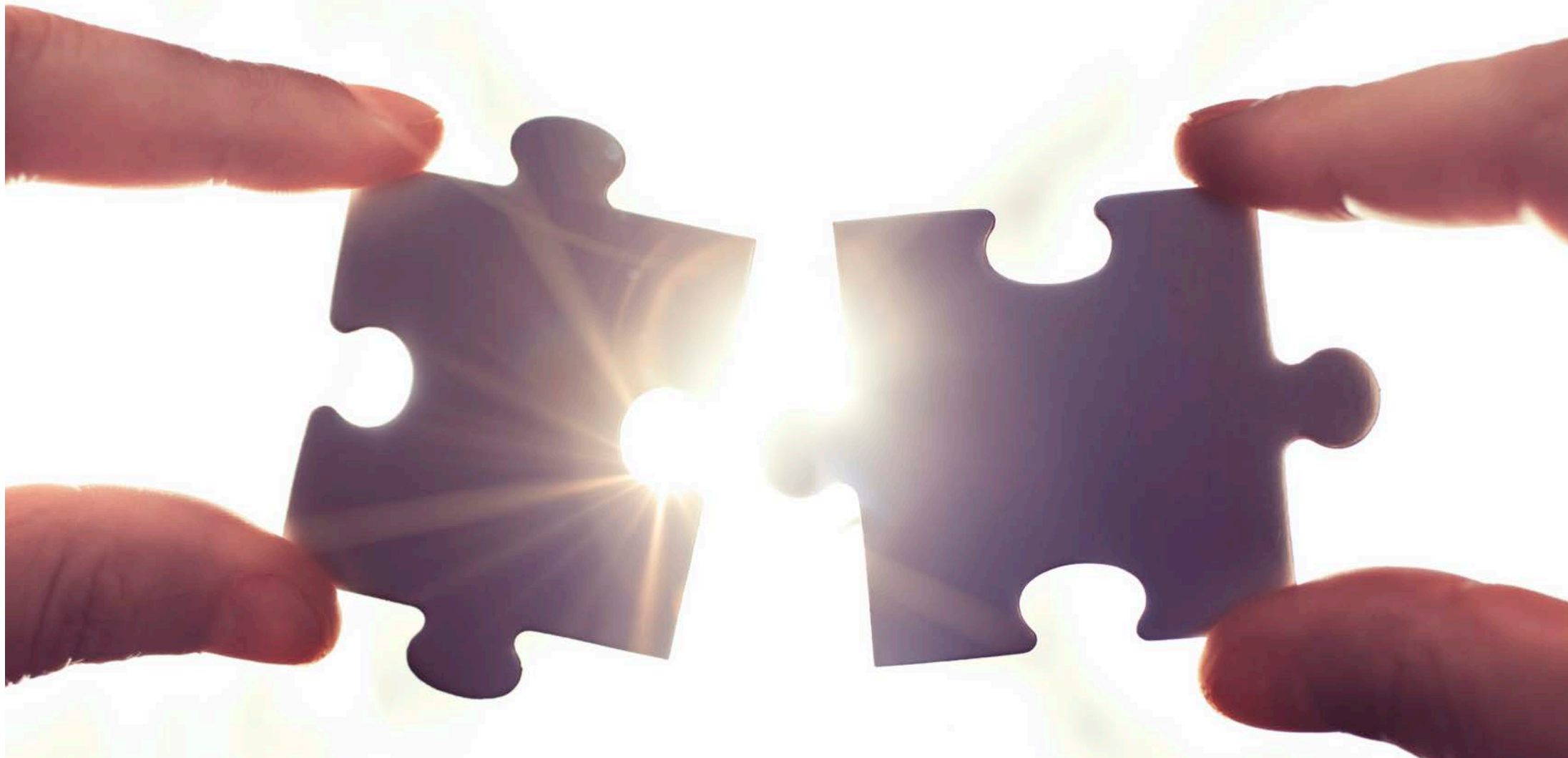
Distrust between parties in many sectors drives the adoption of block-chain which offers a universal set of tools for cryptographic assurance of data integrity, standardized auditing and formalized contracts for data access.



## Conservative Regulators

As legislators tend to be risk averse, there is a regulatory desire for certainty with a continuous concern about unintended consequences of change. Regulators may therefore slow adoption of new technologies and approaches.





## **A Public Good**

Broader use of data requires not only fostering data system reliability and interoperability but also addressing individual data ownership and the extent to which data should constitute a public good.



## **Public Benefit vs. Personal Risk**

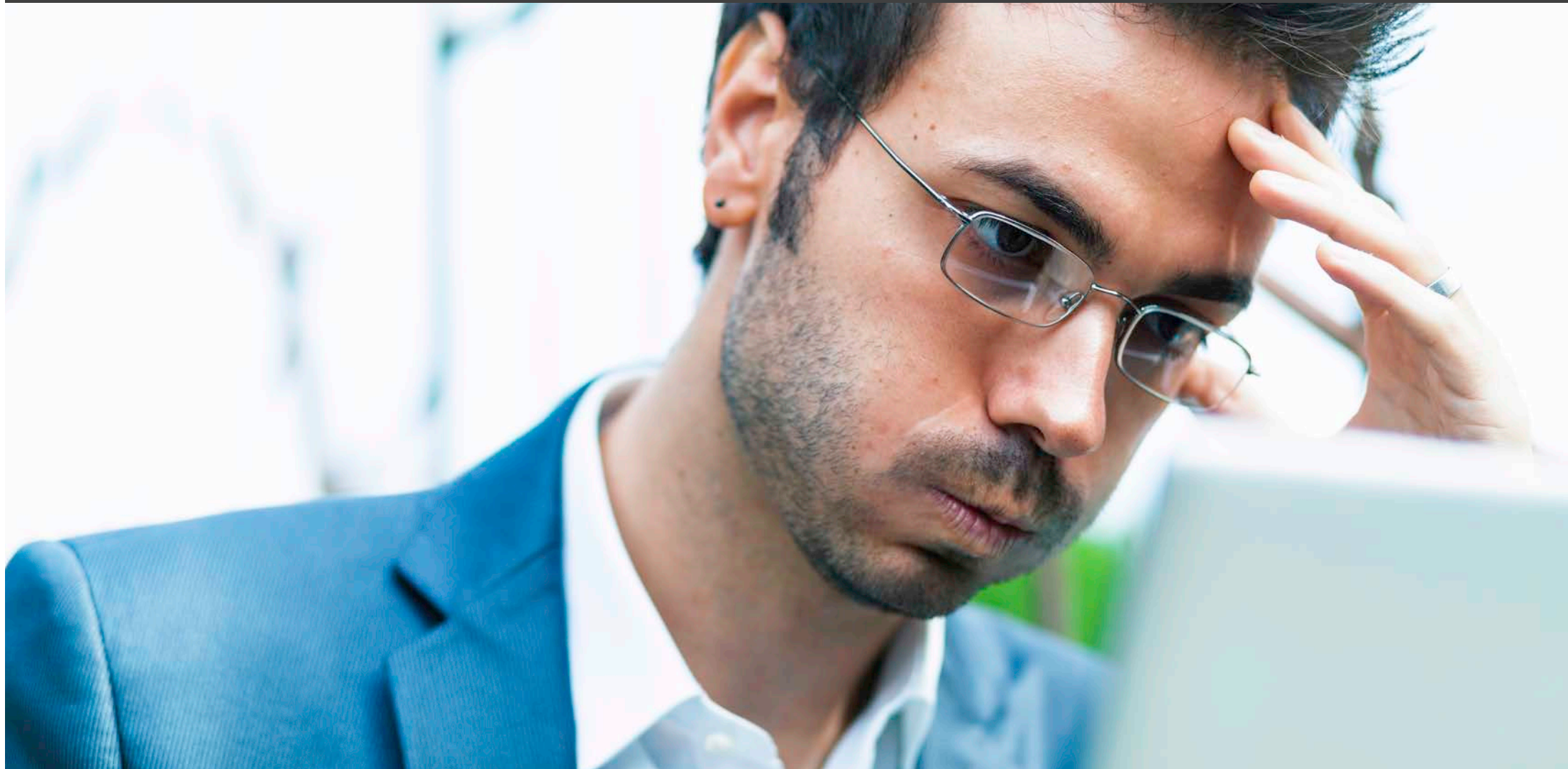
In linking and sharing more data we will increasingly weigh public benefits against personal risk. The potential harm from unauthorized release of confidential data will be a conundrum for many in the some key sectors.





## Decentralized Secure Data

We need to decentralize key personal data because the more it's amassed, the more likely it's going to be hacked. Centralized ownership of medical records, for example, is increasingly seen as a security risk.



## Too Much Information

As more data is available, some seek to restrict the total information being shared with consumers. Fear of data overload exceeding the individuals' capacity to see things in perspective leads platforms to filter what is shared.





## **Ulterior Motives**

Some organisations use personal data to screen customers and employees: Employers recruit only the healthiest and insurance companies increasingly refuse cover to those with unacceptable risks.



## Data Sovereignty

Sensitivity over the ownership of personal information will constrain the sharing of data across some national boundaries. In particular, growing resistance to a US-based concentration of population data builds.





## **Global Privacy Standards**

Global standards will eventually be created for each country to sign up to and use as a basis going ahead: However garnering agreement will be difficult as each region has a different approach to patient data.





## Humans in the Network

The next generation of implanted devices and additional sensors within the body increasingly make humans part of the network. Safety concerns around hacking and privacy issues on tracking challenge some systems.





## Questions

As we share and build on this view we would like to know what you agree with, what you don't, what is missing and, most importantly, what will be some of the key impacts and implications – both globally and regionally.

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